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(54) **SYSTEM AND METHOD FOR OPERATING A PUMP**

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(57) **ABSTRACT**

A pumping system and method for operating a pumping system including a motor coupled to a variable speed drive to drive a pump. A torque indicator corresponding to the torque presented to the drive is determined. The torque indicator may be used to detect a fault if it exceeds a baseline torque, or to detect a defective transducer, or to detect a system change by perturbing one parameter and comparing another to a predicted value.

23 Claims, 6 Drawing Sheets